

**IN THE CLAIMS**

The following is a complete listing of claims with a status identifier in parenthesis.

**LISTING OF CLAIMS**

1. (Previously Presented) A connection device comprising:  
  
one or more non-dedicated<sub>1</sub> processing units; and  
  
an optical switch for receiving Ultra-Long Haul (ULR) optical signals and for connecting at least one of the units to one or more of the received signals based on a characteristic of each signal.
2. (Original) The device as in claim 1 wherein the at least one unit comprises a Raman pump.
3. (Original) The device as in claim 1 wherein the at least one unit comprises an optical-to-electrical-to-optical regenerator.
4. (Original) The device as in claim 1 wherein the at least one unit comprises a dispersion equalization/compensation unit.
5. (Original) The device as in claim 1 where the at least one unit comprises a performance monitor.
6. (Previously Presented) A router comprising:  
  
one or more non-dedicated<sub>1</sub> processing units; and  
  
an optical switch for receiving Ultra-Long Haul (ULR) optical signals and for connecting at least one of the units to one or more of the received signals based on a characteristic of each signal.
7. (Original) The router as in claim 6 wherein the at least one unit comprises a Raman pump.

8. (Original) The router as in claim 6 wherein the at least one unit comprises an optical-to-electrical-to-optical regenerator.

9. (Original) The router as in claim 6 wherein the at least one unit comprises a dispersion equalization/compensation unit.

10. (Original) The router as in claim 6 wherein the at least one unit comprises a performance monitor.

11. (Previously Presented) A method for providing an optical, service-enabled connection comprising:

receiving Ultra-Long Haul (ULR) optical signals; and

connecting at least one of a number of non-dedicated, processing units to one or more of the received optical signals based on a characteristic of each signal.

12. (Original) The method as in claim 11 wherein the at least one unit comprises a Raman pump.

13. (Original) The method as in claim 11 wherein the at least one unit comprises an optical-to-electrical-to-optical regenerator.

14. (Original) The method as in claim 11 wherein the at least one unit comprises a dispersion equalization/compensation unit.

15. (Original) The method as in claim 11 wherein the at least one unit comprises a performance monitor.

16. (Previously Presented) The device as in claim 1 wherein the at least one unit is selected from the group consisting of: a gigabit Ethernet unit, a re-shape and re-amplify without retiming unit ("2R unit"), a re-shape and re-amplify with retiming unit ("3R unit"), a Simple Data Link (SDL) unit and a SONET/SDH unit.

17. (Previously Presented) The router as in claim 6 wherein the at least one unit is selected from the group consisting of: a gigabit Ethernet unit, a 2R unit, a 3R unit, a SDL unit and a SONET/SDH unit.

18. (Previously Presented) The method as in claim 11 wherein the at least one unit is selected from the group consisting of: a gigabit Ethernet unit, a 2R unit, a 3R unit, a SDL unit and a SONET/SDH unit.